Water Quality Tests Define Emerging Trends By Daniel Mintz
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A statewide research program is about to go underground in Humboldt County, to test deep aquifers that supply municipal and private wells.

U.S. Geological Survey (USGS) and state scientists were at the Humboldt Bay Municipal Water District office in Eureka July 15 to talk about the program, which tests water quality and gauges the effects of human activities.

The Groundwater Ambient Monitoring and Assessment program (GAMA) will begin in Humboldt County later this month, in coastal basin areas from Big Lagoon to Rio Dell.

Deep aquifers supplying wells used for public drinking water, irrigation, schools and parks will be tested for solvents, pesticides, trace elements and radioactive compounds in an effort to better understand groundwater conditions and what affects them.

The various compounds will be screened at "extremely low levels" on raw, untreated groundwater, said Dori Bellan, a state Water Resources Control Board geologist.

"It's not about what people are drinking, it's about the state's groundwater quality, it's a snapshot in history," she continued.

The process will be redone in 10-year intervals, said Bellan, to "see where trends in water quality are going."

The testing reveals underlying conditions and the trace presence of contaminants. "If it's affected enough of the aquifer that it's starting to show up in public supply wells and domestic wells, that's one of the aspects of the program that we look at," said Barbara Dawson, a USGS groundwater hydrologist.

If test results do show that contaminants are present in levels beyond federal and state maximums, the information will be referred to the state's Department of Health, Dawson said during a question and answer period.

But the program's focus is on research, not regulation, and participation in it is voluntary. In an interview, Bellan said the test results will be shared with well owners "so that they can see if they have an existing effect from human use on their groundwater."

Well testing has been ongoing since 2000, following the passage of state legislation which called for it. The USGS got involved last year, when Proposition 50 bond funding was suspended.

The federal government is doing a nationwide groundwater assessment and stepped in to replace the lost state funding.

That underscores the relevance of the work. "One of the aspects of assessing the nation's resources is water quality," Dawson said.